

Access other videos in this series here:

<https://files.asprtracie.hhs.gov/documents/maintaining-healthcare-safety-during-covid-19-speaker-series-.pdf>

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T R A C I E
HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

Maintaining Healthcare Safety During the COVID-19 Pandemic- Speaker Series

September 2020

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Access Dr. Prachand's bio here:

<https://www.uchicagomedicine.org/find-a-physician/physician/vivek-n-prachand>



TRACIE

HEALTHCARE EMERGENCY PREPAREDNESS
INFORMATION GATEWAY

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ASPR
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PREPAREDNESS AND RESPONSE

“Elective” Surgery and COVID-19

- Need to balance response to COVID with providing ongoing care to non-COVID patients
- **“Elective” ≠ “Optional:”** Surgeon and patient elect whether/when surgery is to take place based on medical necessity, effectiveness, and consequences of delay; the need for surgical treatment of disease remains
- Decision to proceed with any operative treatment in the setting of the COVID-19 Pandemic requires incorporation of novel factors previously not overtly considered by surgeons
 - Dynamic resource limitations (testing, PPE, ICU beds, ventilators, personnel)
 - Risk of infection to the health care team and patient
 - COVID-19 specific perioperative risk (fulminant post-op respiratory failure in asymptomatic COVID+ patients)

MeNTS Scoring Process

- Multispecialty group created a tool that systematically integrates these factors to facilitate decision-making and triage for non-emergent but **Medically-Necessary, Time-Sensitive (MeNTS) Procedures**
 - 21 factors associated with poorer outcomes, increased COVID-19 risk to providers, and/or increased resource utilization were identified
 - Procedure
 - Disease
 - Patient

Prachand et al JACS 2020

Procedure	1	2	3	4	5
OR Time	< 30 min	31-60 min	61-120 min	121-180 min	≥ 181 min
LOS Anticipated	Outpatient	23hrs	24-48 hrs	2- 3d	> 4d
Post-Op ICU need	Very Unlikely	< 5%	5-10%	11-25%	≥ 25%
Bleeding Risk/EBL	< 100cc	101-250cc	251-500cc	501-750cc	≥ 750cc
Surgical Team Size	1	2	3	4	> 4
Intubation Needed to Perform Procedure (Probability)	≤ 1%	1-5%	6-10%	11-25%	≥ 25%
Surgical Site	None of the following	Abdominopelvic MIS Surgery	Abdominopelvic Open Surgery, Infraumbilical	Abdominopelvic Open Surgery, Supraumbilical	OHNS/Upper GI/Thoracic

- Higher score for each factor is associated with poorer outcome, increased risk to providers, and/or increased hospital resource utilization

Patient	1	2	3	4	5
Age	<20 yo	21-40yo	41-50yo	51-65yo	>65yo
Lung Disease (asthma, COPD, CF)	None			Minimal (rare inhaler)	> Minimal
OSA	Not present			Mild/Moderate (no CPAP)	On CPAP
CV Disease (HTN, CHF, CAD)	None	Minimal (no meds)	Mild (1 med)	Moderate (2 meds)	Severe (≥ 3 meds)
Diabetes	None		Mild (no meds)	Moderate (PO meds only)	> Moderate (insulin)
Immunocompromised*	No			Moderate	Severe
ILI Sx's (fever, cough, sore throat, body aches, diarrhea)	None (Asymptomatic)				Yes
Exposure to known COVID+ Pt (14d)	No	Probably Not	Possibly	Probably	Yes

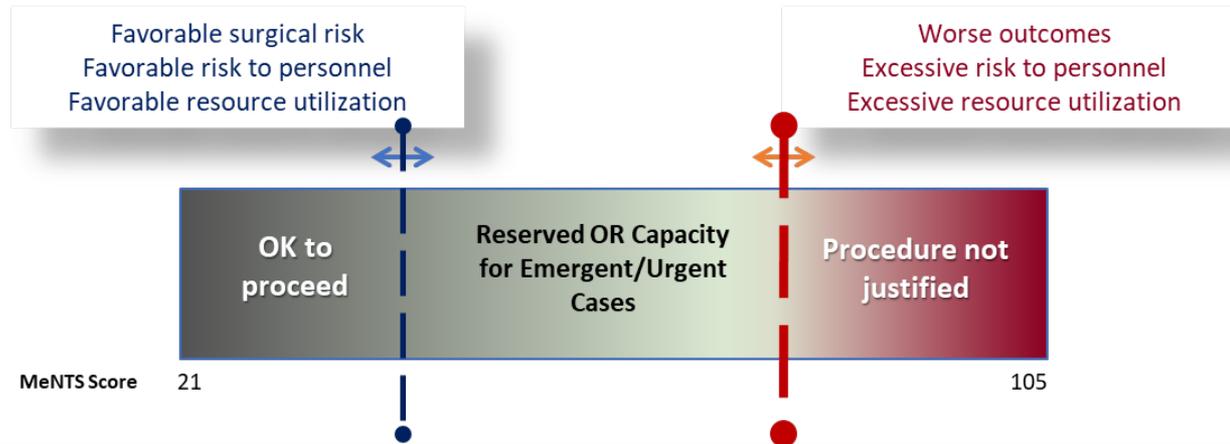
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Disease	1	2	3	4	5
Non-Operative Treatment Option EFFECTIVENESS	None available	Available, <40% effective as surgery	Available, 40-60% effective as surgery	Available, 60-95% effective as surgery	Available, equally effective
Non-Operative Treatment Option RESOURCE USE/ EXPOSURE RISK	Significantly worse/ not applicable	Somewhat worse	Equivalent	Somewhat better	Significantly Better
Impact of 2wk delay in DISEASE outcome	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
Impact of 2wk delay in SURGICAL difficulty/risk	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
Impact of 6wk delay in DISEASE outcome	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
Impact of 6wk delay in SURGICAL difficulty/risk	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse

- Higher score indicates less harm if non-operative treatment is pursued and/or surgical treatment is delayed
- Limited resources are better deployed for diseases where non-operative care is less effective and where delayed surgical treatment leads to worse disease outcome and/or increases surgical risk

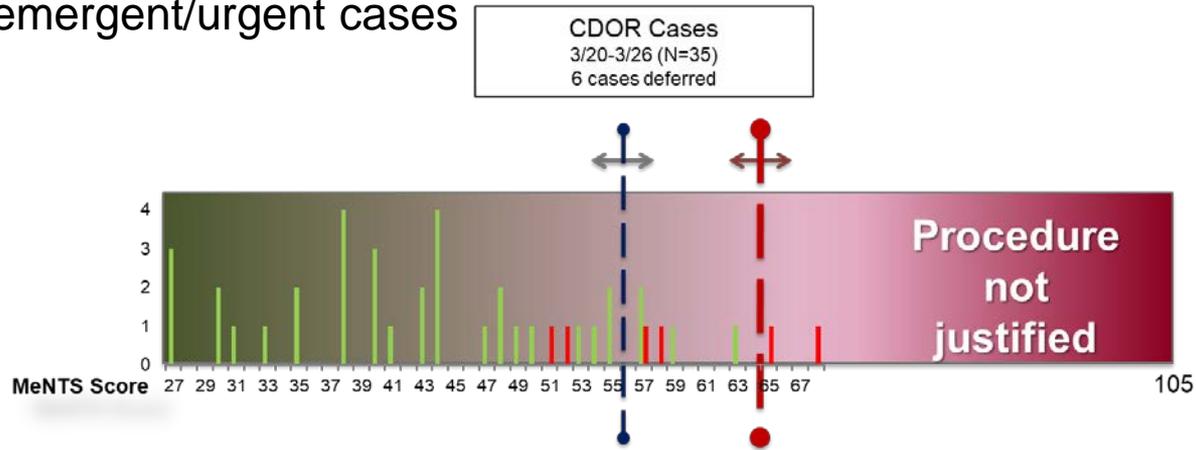
Utility of MeNTS Scoring Process

- Procedure + Disease + Patient = Total MeNTS Procedure Score (21-105)
- Score thresholds can be adjusted in real time based on local resources and conditions in the context of the COVID-19 pandemic
 - If score exceeds Upper Score threshold, procedure not currently justifiable
 - Lower Score threshold guides preservation of resources for emergent/urgent cases



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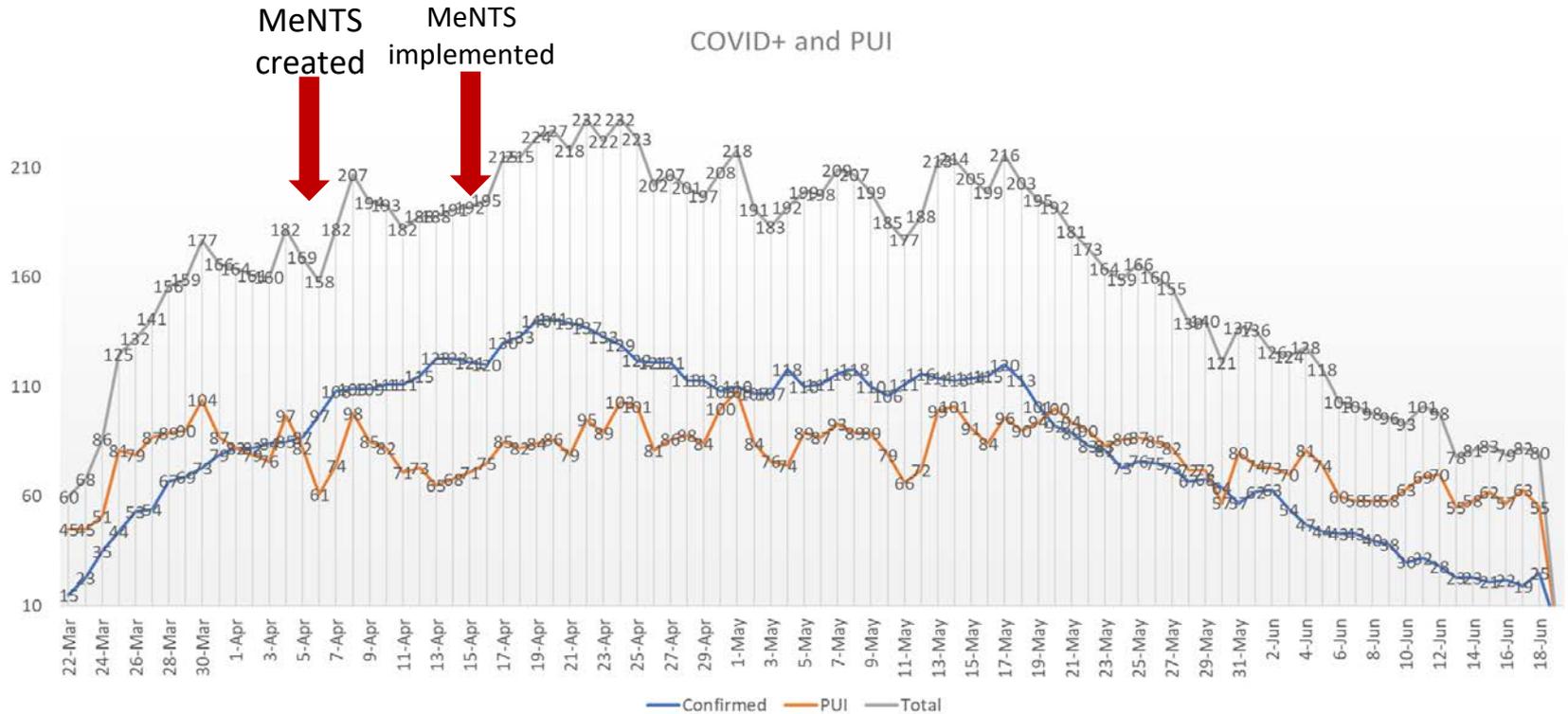
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Operationalizing MeNTS

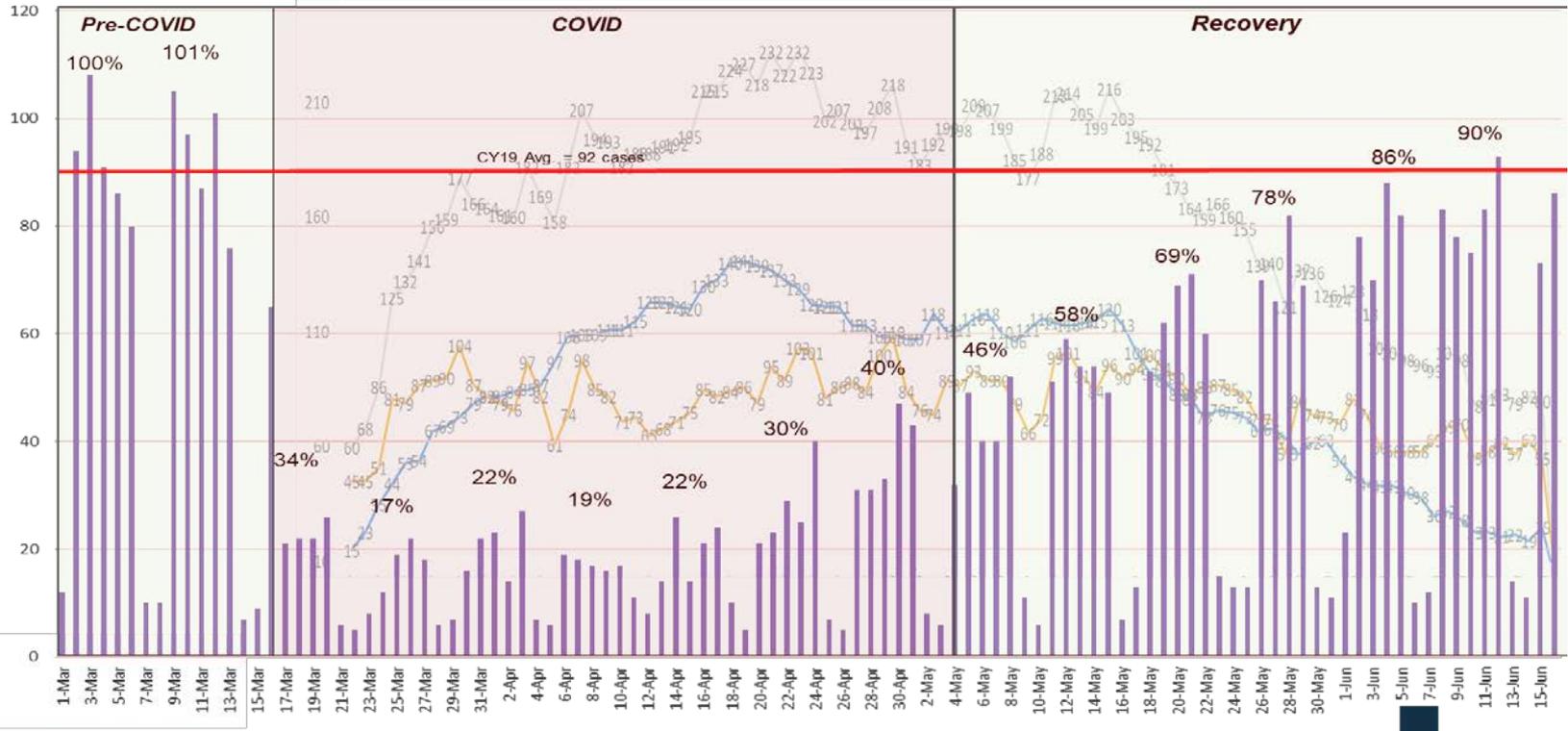
- All procedure requests must be accompanied by a MeNTS worksheet completed by the surgeon
- Upper and Lower Score Thresholds regularly reviewed and adjusted by OR leadership
- “Borderline” cases discussed MD-to-MD

COVID-19 Cases 3/22/20 – 6/18/20 at University of Chicago



OR Case Volume Recovery

OR Volume Trend (CDOR/DCAM/COMER) 3/1/2020 - Yesterday



COVID-19 MeNTS Surgery Scoring System

Strengths

- Dynamic flexibility based on resources and conditions
- Transparency provides reassurance to our colleagues, trainees, and public that their safety and resource preservation is being taken into consideration
- Systematically integrates complex factors not usually considered (like a “checklist”)
- Applicable across specialties and diseases
- Offloads some emotional and ethical workload, reduces risk of moral injury
- Can be used along the entire COVID-curve, including the recovery phase as “elective” procedures resume

Weaknesses

- Paucity of collective high-quality data in setting of ongoing pandemic
- Factors may require updating as data become available (obesity!)
- Disproportionate weighting of factors is inevitable
- False reassurance/objectivity (~“Pain score”)
- Does not anticipate resource availability for management of complications during hospitalization or readmission

MeNTS Implementation: Lessons Learned

- MeNTS is NOT a risk calculator for prediction of outcomes. It is an “Index” that incorporates risk of COVID-19 severity, COVID-19 infection (patient/providers), resource use, medical necessity, and time-sensitivity
- Avoid requests to modify MeNTS scoring for individual specialties
- Emphasize safety measures that have been implemented at your institution
- Economic considerations are NOT part of MeNTS scoring (patients, public, non-surgical services)
- Acknowledge uncertainties (false negative tests, lateral spread, future resources)
- Avoid the word “elective”

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